

## Remarks

Numbered paragraph 5 of the Office Action:

In its heading, claims are rejected over a combination of 3 documents including Kamon. In the body of numbered paragraph 5, Kamon is not discussed, but It is discussed. Thus, we cannot properly identify the argument.

In the body of numbered paragraph 5, the decision "In re Leshin" is recited to have held "to be within the general skill of a worker in the art to select a known material, or orientation of material, on the basis of its suitability."

From MPEP 2144.07 it is clear that the emphasized part above is added interpretation by the Examiner. No reasoning for such extended interpretation is given.

With regard to claim 9 it is traversed that the patent to Craighead or what may be "admitted" by describing this reference in the specification would show "a reticle with support material of transparent optically uniaxial crystal".

First, this wording is not found in the specification, but taken from claim language only.

Second,  $MgF_2$  may be a species which belongs to a genus of "transparent optically uniaxial crystal". A species may anticipate a genus, but may not disclose it as such. Also, many of the cited fluorides are not of this genus.

Claim Rejections - 35 USC US 103(a)

Claim 8 and 9 are rejected as being unpatentable over Craighead in view of Szarnes and Kamon.

Suggestion or motivation:

MPEP 2143, based on established decisions, requires that to combine references, there must be some suggestion or motivation to do so.

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None such is given in Craighead, Szarmes and Kamon. There also cannot be such from the factual circumstances, as has been previously explained in the prosecution of this application.

Craighead discloses a reticle. Here, the support material has to support and be transparent. Other effects are disturbing. A reticle is to be placed orthogonally into a light beam in very clearly defined special arrangements. Now what could motivate a person skilled in the art to start from Craighead and look into a specification of a beamsplitter of Szarmes? A beamsplitter is a part with a desired heavy influence on a light beam: it shall split the light beam into two. Also it is routinely, and specifically in all shown embodiments, inserted approximately diagonally into a light beam.

All these are prohibitive facts keeping a specialist away from expecting any teaching to optimize Craighead from the Szarmes reference.

It is to be noted also, that Szarmes in column 16, line 23 ff. "In all designs employing uniaxial crystal:..." cannot be interpreted to cover "all optical designs of any sort", but is a teaching for the "preferred embodiment of the invention": a "birefringent beamsplitter" only (see heading column 15).

In the last sentence, Ito is combined with a teaching ("the principal axis...") which is not attributed to a reference. Also no relevant part or teaching is attributed to Ito.

Ito teaches a special reticle/a mask which according to its claim 3 is made of  $\text{SiO}_2$ ,  $\text{CaF}_2$ ,  $\text{MgF}_2$  or  $\text{Al}_2\text{O}_3$ . In column 10, lines 39-40; "For instance,  $\text{Si}_3\text{N}_4$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{CaF}_2$ , or  $\text{HfO}_2$  may be used in place of quartz", in column 13, line 38, column 22, line 43, ditto. No property of a substrate is discussed other than its transmissivity. Note that only in the claim 3 listing is  $\text{MgF}_2$  named and very different crystals are listed. So Ito adds nothing relevant to the teaching of

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Craighead. Craighead's combination with Szarnes (which possibly was meant by the Examiner) is in no way suggested or motivated. So there is also no basis for the "in re Leshin" argument.

Citing Kamon:

The use of radially polarized light is said to be "routine in the art as is evident from the teaching of Kamon.

Nowhere in the MPEP do we find the "routine in the art" concept.

Factually it cannot be that a singular patent - which is a very special publication, which just lately, at its filing date indicates, was not routine, but an invention - constitutes routine knowledge. Such must be established by multiple use.

Just naming a teaching of an isolated patent to be routine can in no way relieve the burden of proof that suggestion, motivation and expectation of success are needed to combine references.

Even the Examiner sees a need for motivation. But, what he cites from Kamon is in no way related to claims 8 or 9 or to the reticle/mask of Craighead or Ito. Effects in the resist pattern of a wafer subject to exposure by a projection exposure system are in no way related to substrate material of a reticle and its birefringent properties.

Thus, Kamon gives no hint why to look out for special reticles anywhere.

From Craighead/Ito/Szarnes no reason exists why to look into techniques of preventing deterioration of resist patterns on the wafer.

Consequently, a properly reasoned statement of obviousness is not given. Also, factually it cannot be found, as no suggestion or motivation for the multiple combination of references is made available.

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Numbered paragraph 6 of the Office Action:

Claim 10 is dependent on claim 8 or 9 and is non obvious with them.

The further difference cited to Craighed s incomplete:

a "cooling device with a flowing fluid" is claimed, not just a "cooling device" as in the Office Action.

Claim 19

This is an independent claim having the feature:

"further comprising at least one flat plate arranged parallel at said reticle, in which a fluid flows between said reticle and said at least one flat plate. A "cooling device" is not present in this claim, and the arguments are irrelevant. Many other purposes than cooling, e.g. heating, cleaning or other purposes can be realized by said flow. Ashida may teach a fluid flow along the reticle, but Ashida does not teach a flat plate arranged parallel and the flow to be in between the reticle and the flat plate (see all Figures).

Claim 19 also is amended as follows:

"a reticle with an ~~optical axis~~ and support material...."

An optical axis of a reticle is irrelevant for the claimed invention.

Consequently, claim 19 is non-obvious.

Numbered paragraph 8 of the Office Action

Claim 15 is amended to read:

"A pellicle ~~for use~~ in a microlithographic reticle arrangement consisting of fluoride crystal."

The Office Action rejection is only based on a supposed non-limiting character of the claim 15 language. This is clearly avoided with the amended claim.

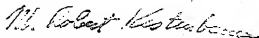
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Wherefore, further consideration and allowance of the claims in this application is respectfully requested.

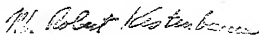
A two-month extension of time in which to respond to the outstanding Office Action is hereby requested. PTO Form 2038 is enclosed authorizing charging a credit card for the prescribed two-month Large Entity extension fee of \$420. Please charge any additional fees or credit any overpayments to Deposit Account 11-0665. A duplicate of this page is enclosed for this purpose.

Respectfully submitted,



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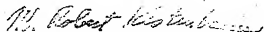
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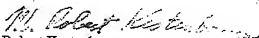
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Re: U.S. Patent Application 09/261,080  
Filed March 2, 1999  
Applicant Schuster  
Attorney Docket (Z) 98005 P US

Amendment (8 pages) in response to Office Action mailed November 10, 2003, two month extension request and PTO-2038 authorizing credit card payment for Large Entity fee of \$420, Copy for Deposit Account for any additional fees, First Class Mail Certification for March 31, 2004.

MAILED & CERTIFIED  
ON March 31, 2004